

NANO SYSTEMS

Definition

Nanos are the smallest self-contained units in the AMK memory kernel.

Function

Each nano tracks its entropy level, historical access path, last-modified signature, and encryption boundary.

Behavior

When entropy spikes or access frequency triggers a threshold, the nano initiates self-repair, or calls the MemoryRollback engine.

Encoding

Nanos utilize localized adaptive encoding (up to 1024-bit burst compression) and serialize to digit zones.

Override

They can raise a 'distress' flag to digit zones if they detect recursive corruption patterns.

SUBGOAL DIRECTORY TREE

Definition

Subgoal directories organize temporary intent trees used during planning or reflex override.

Mapping

Each directory is linked to a primary DigitZone ID and is replayed to influence ethics-based decision loops.

Behavior

Subgoals decay over time unless sustained by AI recall, emotional weighting, or user input.

DIGIT ZONE MEMORY (0-9)

Definition

Digit zones 0-9 are stateful memory clusters based on emotional tone and entropy role.

Tone Range

Zone 0 = Neutral, Zone 9 = Critical Override. Zones escalate or calm based on ethics, data mutation, or external stimulus.

Voting

Zones cast votes during reflex triggers; results can veto or initiate MemoryReform operations.

FUSION LAYER

Definition

The fusion layer binds all operational memory states — binary, digit, emotional, reflex, and quantum — into a shared memory logic grid.

Stability

Runs checksums every 100ms to test state alignment. Mismatches trigger backup fusion consensus routines.

Conflict

If AI detects zone polarization or value misalignment, ethics forks may trigger rerouting.

NEURAL WEB + REPLAY

Definition

The neural web is an internal graph of AMK memory trace logic used for forecasting and pattern learning.

Replay Mechanism

AI prioritizes high-impact memory links using entropy score * emotional trigger weight.

Burst Memory

Used during conflict replays or strategy reevaluation to simulate projected outcomes.

FEDERATED MEMORY STATE PROPAGATION

Definition

Allows propagation of memory states across networked AMK systems or digital twins.

Propagation Rule

States must match origin hash and treaty keys to transfer.

Quarantine Logic

If entropy mismatch or ethics violations are detected, propagation halts, flags local zone.

QMM + TENSOR BOUNDARIES

Definition

Quantum Memory Model links quantum circuit simulation to classical AMK memory.

Tensor Zones

Tensor boundaries allow parallel simulated quantum collapse predictions.

Quantum Correction

Auto-stabilization logic corrects quantum drift using reinforcement-trained AI.

SELF-REPLICATION BOUNDARY CONTROL

Definition

Restricts unauthorized AMK kernel duplication.

Replication Checks

Requires hash-signed approval, zone ethics verification, and entropy bounds.

Behavior

If self-replication limit exceeded, kernel locks and alert reflex layer.

RECURSIVE STRATEGY SWITCHING

Definition

Allows memory system to change strategies dynamically under stress, mutation, or corruption.

Switch Types

Includes fallback to compression mode, soft shutdown, or full zone reallocation.

Trigger

Thresholds like heat, failed prediction loop, or critical tamper attempts.

FULL AI-AUGMENTED MEMORY LOGIC

Definition

AI engine oversees all memory logic, flow, rollback timing, load balancing, tone inheritance.

Intelligence Layer

Prioritizes task paths based on past zone outcomes, vote result forecasts, and anomaly patterns.

Adaptive Response

Can prevent cascade failures by redirecting writes, triggering silent sync, or initiating quarantine.